Corolla half an inch long; upper lip nearly equalled by the oblong large upper sepal. A. VAGANS, Gray.

Corolla smaller and narrower; its tube surpassing the upper sepal. A. BREWERI, Gray.

A. ORCUTTIANUM has been collected within the last year or two, mainly by Mr. C. R. Orcutt, near San Diego, and also in adjacent parts of Lower California. At first it was thought to be possibly a small-flowered state of *A. Coulterianum.* Sometimes, as in that species, the spiciform raceme bears hardly any filiform branches: sometimes they are produced in extreme abundance.

A. NIVENIANUM was collected by the Rev. Mr. Nevin at San Juan Capistrano, Los Angeles Co., in 1882. I think we have an immature specimen of the same from near San Diego. It much resembles the foregoing except in the seeds.

A. SUBSESSILE we have from Santa Catalina Island, collected by Mr. Schumacher in 1878; from Chollas Valley, San Diego Co., by Mr. Orcutt, 1883; both in fruit; and specimens from near San Diego, collected by Mr. Cleveland in 1874 and 1875, young flowering plants, appear to be of the same species, although they had been taken for *A. Nuttallianum.* The sessile leaves and short-peduncled flowers ought to distinguish it.

Schedule of North American Species of Paspalum.

BY GEO. VASEY.

PASPALUM, Linn.

Section EUPASPALUM, Benth. Spikelets arranged alternately, singly or in pairs, along the central elevated ridge of the rhachis (not immersed in it), the lower empty glume and the flowering one facing the ridge or rhachis.

Subsection *Opisthion*, Benth. Two empty or outer glumes: the narrow rhachis of the spikes flat or rarely somewhat concave.

a. Spike single and terminal.

1. *P. rectum*, Nees, var. *longispicata* (P. monostachyum, Vasey).

b. Spikes in terminal pairs, or rarely 3 and approximate.

2. *P. conjugatum*, Berg. Mississippi and Louisiana.
3. *P. notatum*, Flugge. On ballast ground, Philadelphia.
4. *P. distichum*, Linn.
5. *P. variegatum*, Swz. (P. Reimarioides, Chapm.)

vaginatum, see infra, p. 81.

c. One terminal, and usually a second approximate spike, with remote lateral peduncled ones.

6. *P. setaceum*, Michx. and varieties.

d. Spikes 2 to 5, or rarely 7, approximate or the lower ones rather distant.

7. *P. racemulosum*, Nutt.
8. *P. læve*, Michx.
9. *P. Walterianum*, Schult.
10. *P. cæspitosum*, Flugge.
11. *P. remotum*, Remy.
12. *P. Floridanum*, Michx.
13. *P. giganteum*, Baldw. ined.
14. *P. lividum*, Trin.
15. *P. lentiginosum*, Presl.
16. *P. lentiferum*, Lam. (P. præcox, Walt.)
17. *P. dilatatum*, Poir. (P. ovatum, Trin.)
18. *P. elatum*, Richard in Herb. Paris.

e. Spikes more numerous, 7 to 20 or more.

19. *P. virgatum*, Linn., var. *platyoxon*, Doell.
20. *P. purpurascens*, Elliott.
21. *P. plicatulum*, Michx. (P. undulatum, Poir.)

Subsection *Pseudoceresia*, Benth. (*Ceresia*, Elliott.) Empty or outer glumes, 2. Spikes numerous, spreading, the rhachis more or less dilated, concave, thin and green: the spikelets small and smooth.

22. *P. fluitans*, Kunth. (Ceresia fluitans, Ell.)

Section ANASTROPHUS, Benth. Spikelets on each side of the rhachis of the narrow subflexuous spike, sessile, alternate, mostly in two rows, the lower empty glume and the flowering one turned away from the rhachis (*Spiculæ inversæ*, Nees): the spikes often many, close, suberect.

23. *P. platycaule*, Poir. (P. compressum, Nees.)
24. *P. Digitaria*, Poir? Chapman's Flora.

NOTES.—No. 1, collected by Dr. Garber, at Miami, Florida. The culm is much stouter and the spike much longer than in the typical plant.

Nos. 4 and 5. There is much confusion respecting these species if they are separate. Mr. Bentham makes them synonymous, but there certainly appear to be two species. The *P. vaginatum*, Swz., has prostrate or decumbent culms, growing in water or marshy ground, and *very* acute glumes. The other species has a running rhizome with erect culms, shorter and broader leaves, and barely acute glumes.

No. 6. It is difficult to separate *P. debile* and *P. ciliatifolium*, at least as species. They appear to be only varieties.

No. 10 includes *P. Blodgettii*, Chapm.

No. 11, No. 804 of E Hall's Texas collection, is thus named by Munro.

No. 13 is represented in the Philadelphia Academy collection from Baldwin. It has since been collected by Mr. Curtiss and appears to be a good species.

No. 14, No. 807 of E. Hall's Texas collection, named by Munro.

No. 15 is No. 364 of Drummond's collection, and is also in Herb. Gray from Key West, collected by Blodgett.

No. 19 is in Herb. Gray, ticketed by Munro from a specimen collected in Texas by Mr. Reverchon. It is, perhaps, the same as No. 20, which we have from Virginia and South Carolina, and appears very different from *P. virgatum*, Linn.

No. 21 is 801 of E. Hall's Texas collection. It occurs also from other sources.

No. 24 is the plant of Chapman's Flora, but his synonym should probably be excluded. Doell cites *Milium paspaloides*, Ell., *Digitaria paspaloides*, Michx., and *Milium distichum*, Muhl., as synonyms of *P. vaginatum*, Swz. It is nearly related to No. 23, but would seem to be specifically distinct. The *P. obtusifolium* of Chapman's Supplement is *P. platycaule*, Poir. *P. obtusifolium*, Raddi, and *P. barbatum*, Schultes, are both made synonyms of *P. furcatum*, Flugge, by Doell in Gram Bras., and it is possible that Chapman's *P. Digitaria* may also be that species.

A Botanical Holiday in Nova Scotia. IV.

BY T. J. W. BURGESS, M. D.

Twenty-six miles in the little steamer May Queen over another branch of the great inland sea, and we had reached mountain locked Whycocomagh, or, as it is generally called by the natives Hogomah. The greater part of the three days spent here was devoted to drying purposes, but a couple of very successful excursions were made. One up a rocky gorge in the mountains rewarded us with *Impatiens pallida*, Nutt., *Solidago thyrsoidea*, E. Meyer, *Milium effusum*, L., *Asplenium thelypteroides*, Mx., and two very peculiar forms of *Cystopteris fragilis*, Bernh. The first of these forms, found growing abundantly under the spray of a little fall, in deeply shaded crevices of the rock, fell under the var. *dentata*, Hook., and was remarkable for the great length of